

	STANDARD OPERATING PROCEDURE State Form 39870(R/S-06)	Reference Number SSU-007
	Subject Small Unmanned Aerial Systems (SUAS)	
	Special Instructions New SOP	Effective Date November 21, 2019

I. **PURPOSE**

Establish guidelines for the operation, training and storage of Department owned small unmanned aerial systems.

II. **POLICY**

Department employees shall operate a Department owned small unmanned aerial system (SUAS) in a safe, lawful and prudent manner regardless of the employee's duty status. SUAS shall only be operated by a department qualified operator. Employee shall not utilize a Department owned SUAS in a manner that will reflect discredit on the Department.

Authorized personnel trained in the operation of an SUAS shall be referred to as "Qualified Operators".

The decision to deploy an SUAS shall: (1) adhere to the guidelines set forth in this policy; (2) follow all applicable state and federal laws; and (3) be at the discretion of the Superintendent or their designee. An SUAS may be deployed for training and testing and evaluation by the Department.

III. **DEFINITIONS**

A. Approved Aircraft - An aircraft that has been approved by the program coordinator and included in the Superintendent's statement of airworthiness for use in the Department's area of responsibility and in compliance with the Federal Aviation Administration's (FAA) issued Certificate of Authorization.

B. Certificate of Authorization (COA) - An authorization issued by the FAA Air Traffic Organization to a public operator for a specific activity. The Department shall acquire and maintain an FAA issued COA and all Department authorized qualified operators shall fly in accordance with the COA.

C. Program Coordinator - A Department representative that acts as liaison between the Department and the FAA. The program coordinator shall conduct and document initial training, monthly FAA reporting and ensure all SUAS operations are conducted in accordance with the conditions and limitations stated in the Certificate of Authorization. The program coordinator is responsible for maintaining and inspecting the SUAS to ensure it is in a condition for safe operation.

D. Qualified Operator - A sworn Department member that has been selected and trained by the Department to fly an approved aircraft.

E. Visual Observer - A person who is designated by the qualified operator to assist the qualified operator and the person manipulating the flight controls of the small UAS to see and avoid other air traffic or objects aloft or on the ground.

F. Small Unmanned Aircraft System (SUAS) - An aircraft, weighing less than 55 pounds on takeoff (including everything that is on board or otherwise attached to the aircraft) that is operated without a physical human presence within or on the aircraft which, in the manner in which it is used or the manner in which it is equipped, is capable of performing audio or visual surveillance and guided by remote control.

IV. GENERAL PROCEDURES

A. Selection:

1. Department employees with the rank of Sergeant and below, unless advertised with specific criteria, are eligible to apply for membership. However, certain positions or job duties may preclude an employee from applying as determined by the Assistant Chief of Staff / Operations.

2. When a vacancy is announced, interested Department members shall submit a Specialty Team Application form to their respective Area Captain, through channels. The interested Department member must be:

- a. A volunteer;
- b. In good physical condition within Department guidelines;
- c. Current on all required Department training (e.g. first aid, CPR, etc.);
- d. Able to successfully meet any required physical or mental testing standards required and;
- e. Must have at a minimum, met all baseline performance standards on their last evaluation.

B. Training

1. Initial Training

a. Prior to the deployment of the SUAS, an officer must first attend Department approved training facilitated by the Staff Services Unit and must be knowledgeable of the standards set forth in this policy. The approved training shall include, but is not limited to, the following topics:

- (1) Rules / Regulations;
- (2) National Airspace System;
- (3) Weather;
- (4) SUAS Loading and Performance;

- (5) Crew Resource Management;
- (6) Airport / Field Operations;
- (7) Radio Communications;
- (8) Emergency Procedures;
- (9) Preflight / Maintenance;
- (10) SUAS Practical Instruction.

2. Proficiency Training

- a. One (1) hour per week of SUAS proficiency training shall be scheduled during regular duty hours so long as it does not negatively affect Department operations.
- b. Documentation of all proficiency training flights shall be in accordance with section IX of this SOP.

3. Annual Training

- a. Qualified operators shall undergo a yearly refresher training program established by the Department to maintain their status as a qualified operator.
- b. Police employees failing to complete this annual refresher training without prior approval must submit a memorandum to the Assistant Chief of Staff / Operations.
- c. Failure to complete any subsequent refresher training offered will result in the loss of the police employee's qualified operator status.

V. UTILIZATION

A. A Qualified Operator of this agency may be allowed to use a SUAS in compliance with all Federal Aviation Administration (FAA) requirements and guidelines, including the COA or Waiver from the FAA, as well as any other applicable law, under the following circumstances:

- 1. Crash investigation purposes;
- 2. Public safety purposes, in which exigent circumstances exist, with the approval of the respective Area Captain or their designee;
- 3. Criminal investigative purposes, in compliance with all applicable Indiana statutes, with the approval of the respective Area Captain or their designee.

VI. MODIFICATION

A. Written approval by the Superintendent, or his authorized designee, is required prior to equipping a SUAS with any attachments.

B. Qualified operators are prohibited from altering or modifying a SUAS from the manufactures original design (e.g. adding stickers) without approval.

C. A qualified operator that intentionally uses the SUAS without proper authorization or in deviation of the standards set forth in this policy shall be subject to disciplinary action.

VII. FLIGHT OPERATIONS

A. All flights shall comply with the Certificate of Authorization issued to the Department, within the parameters of applicable Indiana state laws, and all Federal Aviation Administration policies concerning SUAS utilization.

B. The qualified operator will at all times have a visual observer to assist in the operation of the SUAS. Contact with the qualified operator and the visual observer shall be mandatory for the entire duration of the flight.

C. The Regional or District Duty Officer shall immediately notify the Operations Center of all SUAS deployments.

D. Multiple SUAS's may not be deployed in a small geographical area at the same time without first coordinating and defining the parameters of the area where each deployed SUAS will be operated.

E. Prior to a SUAS deployment, a qualified operator shall;

1. Conduct an assessment of the operating environment. The assessment must include at least the following:

- a. Local weather conditions;
- b. Local airspace and any flight restrictions;
- c. The location of persons and property on the surface;
- d. Other ground hazards.

2. Ensure all persons directly participating in the SUAS operation are informed about the following:

- a. Operating conditions;
- b. Emergency procedures;
- c. Contingency procedures;
- d. Roles and responsibilities of each person involved in the operation;
- e. Potential hazards.

3. Ensure all control links between the control system and the SUAS are working properly.

4. Ensure there is sufficient power to continue controlled flight operations to a normal landing.
5. Ensure any object attached or carried by the SUAS is secure and does not adversely affect the flight characteristics or controllability of the aircraft.
6. Ensure all necessary documentation is available for inspection, including the aircraft registration (if required), and Certificate of Authorization (if applicable).

F. Night Time Operations

1. All operations under the approved COA must use one or more visual observers;
2. Prior to conducting operations that are the subject of the COA, the qualified operator and visual observer must be trained to recognize and overcome visual illusions caused by darkness, and understand physiological conditions which may degrade night vision. This training must be documented and must be presented for inspection upon request from the Administrator or an authorized representative;
3. The SUAS must be equipped with lighted anti-collision lighting visible from a distance of no less than three (3) statute miles. The intensity of the anti-collision lighting may be reduced if, because of operating conditions, it would be in the interest of safety to do so. Additionally, in order to comply with FAA Regulation 14 CFR § 91.209, the aircraft must have position lighting that enables determination of location altitude, attitude, and direction of flight.

VIII. EMERGENCY / CONTINGENCY PROCEDURES

A. All SUAS owned, operated or deployed by the Department must have an automatic return-to-home feature activated.

B. Lost Link Procedures:

1. In the event of a lost link, the qualified operator will comply with the following provisions:
 - a. The SUAS lost link will be programmed to ensure that lost link flight does not fly over persons and the landing location is within the view of the qualified operator.
 - b. Rally and home locations will be programmed to remain within the area defined in the FAA Notice to Airmen (NOTAM) where flight operations are being conducted.
 - c. Lost link procedures will not transit or orbit over populated areas, Victor airways, or busy roadways/interstate highways.

d. Lost link procedures will be programmed to remain within the operations area and altitude, avoid unexpected turn-around and/or altitude changes, and will provide sufficient time to communicate with air traffic control if necessary.

C. Emergency/Fly-Away Procedures:

1. In the event of an emergency, the qualified operator will immediately contact the air traffic control facility having jurisdiction for the airspace, state the nature of emergency and pilot intentions.

a. In the event of a SUAS fly-away, advise air traffic control of the following:

- (1) Direction of flight;
- (2) Last known altitude;
- (3) Maximum remaining flight time.

D. Loss of Communications between the Qualified Operator and Air Traffic Control

1. If required, the qualified operator will communicate with air traffic control through use of two way radio communications or a cellular phone based on the agreement between air traffic control and the qualified operator.

2. In the event the qualified operator is unable to establish communications, the qualified operator will immediately land the SUAS until communications can be regained. In all cases, during Loss of Communications, there is concern for people or property in the air or on the ground the qualified operator will immediately land the aircraft.

E. Loss of Communications between the Visual Observer and the Qualified Operator

1. The qualified operator and visual observer will be collocated during operations for this COA and communications will be through direct communication. However, if the observer and the qualified operator are not collocated where verbal communication is not possible, the following communication tools will be utilized:

- a. Hand held Police radio
- b. Cellular phone
- c. Hand Signals (may be used solely or in conjunction with the communication equipment)

F. If communication is lost and cannot be re-established the SUAS will immediately land.

G. Incidents of lost signal or communications must be documented and reported to the FAA in accordance with the current COA.

IX. FLIGHT DOCUMENTATION

A. Computer Aided Dispatch

1. All SUAS deployments, regardless of incident type, shall be documented in a CAD card. If no existing CAD card is open for the incident, a CAD card shall be created.
2. Training or proficiency flights shall also be documented in this manner.
3. The following information shall be entered into a CAD card:
 - a. Location of deployment;
 - b. Reason for deployment;
 - c. Deployment time;
 - d. Landing time;
 - e. Qualified Operator name and PE;
 - f. Visual Observer name and PE;
 - g. Maximum altitude flown;
 - h. Operation Center notification;
 - i. Time notified;
 - j. Name and PE of RDO/DDO making the notification;
 - k. Any incident of damage to a SUAS or other property.

B. Incident Management System

1. All SUAS deployments shall be documented in an RMS report via a supplemental report. If no existing RMS report has been generated, one will be created to document the Department's activities.
2. The following information shall be documented in the RMS report:
 - a. Location of deployment;
 - b. Reason for deployment;
 - c. Deployment time;
 - d. Landing time;
 - e. Qualified Operator name and PE;
 - f. Visual Observer name and PE;
 - g. Maximum altitude flown;
 - h. Operation Center notification;
 - i. Time notified;
 - j. Name and PE of RDO/DDO making the notification;
 - k. Any incident of damage to a SUAS or other property.
 - l. Whether or not a search warrant was obtained for the deployment and the name of the agency which sought the search warrant.

C. Department Deployment Log

1. Qualified operators shall complete the approved Department deployment log to document all uses of a SUAS to include training flights.
2. This log is to be maintained by the Staff Services Unit for an indefinite period of time.

X. EVIDENCE SUBMISSION

A. All photographs or videos obtained as a result of a SUAS deployment shall be submitted in accordance with Department SOP LAB008.

XI. STORAGE

A. The proper care and maintenance of SUAS equipment shall be the responsibility of the Department employee to which the SUAS equipment is assigned.

B. SUAS equipment shall not be kept in a commission for an extended period of time unless the commission is parked in a secure location.

This procedure is to be used in conjunction with all other relevant rules, directives, procedures, and policies.